

# Small Enterprise Research Report

Managing IT

May 2006



Lloyds TSB  
**Business**

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# Small Enterprise Research Report

Managing IT

May 2006 - Vol.3, No.2

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## WEB VERSION: INTRODUCTION

The Lloyds Bank/TSB-sponsored series of small business management reports commenced in 1992, and concluded in 2009. In total, 53 reports were published over a period of 17 years.

Our target audience comprised the owner-managers of independent small businesses, typically employing fewer than 50, and based in mainland UK.

The series originated from a longitudinal study of small business management, undertaken by the Polytechnic of Central London (now University of Westminster), and culminating in: *The Management of Success in 'Growth Corridor' Small Firms*, (Stanworth, Purdy & Kirby, Small Business Research Trust, 1992).

## THEMES

The themes were wide-ranging – including such as entrepreneurship, work & stress, employment strategies, and the environment – a full list is shown overleaf.

## INSIGHT

In addition to asking questions and supplying the respondents with a range of answer options, the corresponding questionnaire was included as an appendix to each report so that readers would know exactly what questions had been put to respondents.

We also sought qualitative information – in the form of verbatim comments about the key theme – to help elaborate on whatever related challenges respondents felt they were facing at the time.

Finally, the findings are primarily intended to be indicative rather than definitive – partly due to the sample size, which is, on average, 111 for the 2003-09 reports.

## PUBLISHING FORMAT

The reports were published in hard copy form, obtainable via subscription. Initially

by the Small Business Research Trust, and from 2003, by the Small Enterprise Research Team (SERTeam), both research charities based at the Open University.

Regrettably, SERTeam ceased operating in 2009, and so in 2010 the authors felt that the more recent reports would find wider interest if they were made freely available in Acrobat format via the Internet – especially with the UK economy set for a protracted journey out of recession, and with the government in turn refocusing on smaller businesses to aid the recovery.

It is worth mentioning that the series commenced as the UK economy emerged from the early 1990s recession.

In 2015, the earlier reports were also converted (1993 to 2003), with the full series made available at Kingston University: <http://business.kingston.ac.uk/sbrc>

## SUPPORTING INFORMATION (WWW)

In later years – as the world-wide-web developed and an increasing number of sources of information became more readily available – suggestions for online sources of related material were included.

N.B. For reports 2003 onwards - where successfully validated, the web links (URLs) were enabled in 2009. And in the case of many invalid web links, an alternative was offered, but not where the organisation appeared defunct and an obvious replacement was not traced.

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University of Westminster**  
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Kingston University**  
<http://business.kingston.ac.uk/sbrc>

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ISSN 0968-6444

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- 1 Surviving The Recession .....February 1993
- 2 Using Your Time .....June 1993
- 3 Management Style ..... September 1993
- 4 Financial Management .....December 1993

1994 (Vol.2)

- 1 Purchasing ..... March 1994
- 2 Quality Standards & BS 5750 .....June 1994
- 3 Management Succession.....August 1994
- 4 Customers & Competitors . November 1994

1995 (Vol.3)

- 1 Information Technology..... March 1995
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- 3 Company Vehicles.....August 1995
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1996 (Vol.4)

- 1 Training ..... March 1996
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1997/8 (Vol.5)

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- 2 Late Payment ..... September 1999
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- 1 Marketing & Sales.....July 2001
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2002 (Vol.10)

- 1 Networking in Business .....August 2002
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ISSN 1478-7679

- 3 Crime Against Small Firms ..... June 2003

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2003-04 (Vol.1)

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- 2 Made in Britain ..... February 2005
- 3 Management & Gender Differences..... July 2005

2006 (Vol.3)

- 1 Local or Global ?.....January 2006
- 2 Managing IT ..... May 2006
- 3 Networking in Business .... September 2006

2006-07 (Vol.4)

- 1 Owner-Manager Flexible Working..... December 2006
- 2 The Ageing Workforce..... April 2007
- 3 Travel & Transportation..... August 2007

2008-09 (Vol.5)

- 1 The London 2012 Olympic And Paralympic Games..... April 2008
- 2 Competition: Small Firms Under Pressure.....January 2009

## WEB VERSION PUBLISHING

<http://business.kingston.ac.uk/sbrc>

Certain content needed to be re-set, e.g., the figures in the earlier editions, but the report body content is intended to be identical to that in the printed original. This web version - an Acrobat document - is derived from the original DTP text and will permit searching.

## LIABILITY DISCLAIMER

The information and analysis in each report is offered in good faith. However, neither the publishers, the project sponsors, nor the authors, accept any liability for losses or damages which could arise for those who choose to act upon the information or analysis contained herein. Readers tracing web references are advised to ensure they are adequately protected against virus threats.

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The Small Enterprise Research Team is particularly pleased to acknowledge the generous support provided by Lloyds TSB in sponsoring the research, analysis and presentation of this report. However, it is important to note that any opinions expressed in this publication are not necessarily those of Lloyds TSB.

**Report Author – Professor John Stanworth (University of Westminster)**  
**Series Editor – David Purdy**

## HIGHLIGHTS

This is the eighth in a series of small business management reports based on surveys of a panel of small firms, mainly in manufacturing, retail/distribution and business services. The focus of this survey was on managing **information and communication technology** (IT or ICT) and the principal findings were as follows:

- **Investment in ICT** – 52% of respondents reported an expenditure of less than £5,000 on equipment and software over the previous 12 months.
- **Investment in ICT and firm size** – As might be expected, a greater expenditure was evident amongst larger firms. None of the smallest firms (0-4 full time equivalent employees) spent more than £20,000, but **over a third (34%) of the largest size band respondents** (20-49 FTE) **spent between £20,000 and £50,000** over the previous 12 months.
- **Investment in ICT and sector** – **The business services sector tended to have invested more**, with 23% having spent in excess of £20,000, compared with 17% of manufacturing respondents, and 5% of those in retail/distribution.
- **Range of ICT applications/tasks** – **Over a half of the respondents (51% or more) reported using 9 applications or tasks**, the most common being word-processing, followed by broadband internet connections (81%) and invoicing/credit control, down to planning/spreadsheet applications, payroll, document scanning and digital photography.
- **Range of ICT applications/tasks and sector** – **Manufacturing businesses were generally the most extensive ICT users**, with the highest proportion of broadband connections (90%), and particularly in payroll, stock control, digital photography, and computer-aided design or manufacturing applications.
- **Internet use** – **The most predominant use was for e-mail** (87% of respondents), and the least, video conferencing (4%).
- **Internet use and sector variations** – Generally speaking, **manufacturers made the widest use of the Internet**, and retail/distribution firms the least. For example, 80% of manufacturers use the World Wide Web for advertising/promotion, compared with 63% of those in business services and 53% of retail/distribution.
- **Internet use and gender variations** – **Male respondents were more inclined to make wider use of the Internet than their female counterparts**, but with perhaps less variation than was in evidence amongst the sectors.
- **Online sales via the Internet** – **31% of respondents reported some measure of sales income this way**, with the most common level falling between 1-9% of sales turnover (for 25% of respondents).
- **Online sales via the Internet and respondent age** – **There was some evidence pointing towards a reduced activity amongst older respondents**, possibly reflecting a generational factor. The rate fell from 40% for respondents aged 35-44, down to just 18% for those aged 55-64.
- **Online sales via the Internet and other variations** – **Women were less likely to feature here than men**, and there were some sector differences, with manufacturing firms more likely than business services and retail/distribution to facilitate this method.
- **The acquisition of ICT skills** – **There was a strong tendency towards 'self-teaching'** (85% of respondent firms) followed by sending staff on courses (30%), sub-contracting, and, recruiting staff.
- **The acquisition of ICT skills and gender variations** – **Female-led businesses were more likely to recruit new staff than their male counterparts.**

continued ...

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- **Accessing new markets** – Perhaps encouragingly, **46% of manufacturing respondents said that investment in IT/ICT had helped them to develop new markets.** This compared with 26% of those in business services, and just 11% in retail/distribution.
- **ICT literacy amongst employees** – **68% of respondents rated their staff as ‘average’ or ‘good’,** with a further 13% rating them as ‘excellent’.
- **Flexibility of employees having ICT skills** – **Just under a half of the respondents (46%) indicated that they were satisfied with the flexibility of staff with ICT skills.** The widest satisfaction was amongst manufacturers (66%), and least, amongst business services (31%).
- **Living with ICT** – The most frequently selected was **‘ICTs have generally improved the quality of working life’ (47%)** followed by **‘ICTs are like children: you can either run the family around them, or integrate them into the family’ (29%).** Only 18% felt that **‘ICTs have taken the people element away from working relationships’.**

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## MANAGEMENT ISSUES

The emphasis of the management reports is on monitoring the key management problems and practices of smaller business, with an emphasis on survival and success. Accordingly, each issue of the report addresses one or more highly topical small business management issues. In this survey we focus on **information and communication technologies** (IT or ICT). The report is produced three times a year.

## THE SAMPLE

This report is based on the responses received from a panel of over 350 small businesses situated in the northern, midland and southern regions of Britain. Respondents are predominantly small firms with fewer than 50 employees, drawn mainly from the manufacturing, business services, and retail/distribution sectors of the economy. The precise distribution of firms varies from survey to survey, but typically over half of the participants employ fewer than 10 people.

## RESULTS

The questionnaire completed by sample firms appears at the end of this report as an appendix. This survey was carried out between February and March 2006.

## BACKGROUND

The report originates from a longitudinal investigation into the development of small firms undertaken by the University of Westminster (then the Polytechnic of Central London) on behalf of the Department of Education & Science, between 1988 and 1992.

## PAST SURVEYS

### 2003-04 (Vol.1)

- No.1 **Small Firms and Politics**
- 2 **Pensions**
- 3 **Work-Life Balance**

### 2004-05 (Vol.2)

- 1 **Education & Enterprise**
- 2 **Made In Britain**
- 3 **Management & Gender Differences**

### 2006 (Vol.3)

- 1 **Local or Global ?**

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## MANAGING IT/ICT

*“Think back only to 1997: no digital TV, no DVDs, no video phones, no broadband, virtually no texting. Just eight years ago: only ten per cent [of] people were on the internet and only ten per cent had mobile phones.*

*So if in only eight years since 1997 we have seen such dramatic technological and scientific change, then think of the impact in the next eight years of technology on occupations, industries, businesses and jobs.*

*And this is not, as is sometimes said, a race to bottom with China and India that can be met by protecting our home industries, shutting foreign goods out, and hoping the world will go away.*

*Because they aspire not to race us to the bottom but to be high skill, high technology economies, China and India are now turning out more engineers, more computer scientists, more university graduates – four million a year, more than the whole of Europe and America combined. And so the answer lies not in protectionism, hoping Asia will go away, but in radically upgrading our skills, science and technology.”*

This extract is from a speech – to trade unionists – delivered by Gordon Brown, as Chancellor of the Exchequer, in September 2005, and broaches the change in recent years arising in no small part from advancements in information and communication technologies (IT or ICTs).

Within a generation, the change has been profound – revolutionary, even – and has affected many businesses to an extent previously unimaginable. For example, the following observation contrasts the days of the telex with today, with reference to the travel industry, a sector with a proliferation of

small businesses (the extract is taken from a review of 25 years of tourism by VisitBritain, in December 2005, with our emphasis added):

*“Can you remember life before email ? All of our interviewees spoke of a strange beast called a TELEX – something like a cross between a toilet roll, a typewriter and a fax, which lived in its own room and was used only on special occasions. It was too expensive to phone overseas so everything was done by post and urgent could mean “within 3 months” not 3 minutes in the 1970s ! ...*

*But it's the Internet that people feel has totally transformed both the way the industry does business and how consumers buy tourism. The emphasis of tourism marketing was always on your appearance in print – **now your brand and your face lives or dies with your website.**”*

The notion of IT/ICTs is fairly commonplace today. However, we sometimes tend to forget just how recent this revolution really is. Only 20 years ago, computers often bred fear and terror into the hearts of would-be users. Individuals in mid-to-late career sometimes based their early retirement decisions on the quest to avoid it. Later, it became a tool that secretaries might use – highlighting the word processing element of IT/ICTs. But now, ICTs are here to stay, they are largely de-gendered, and the battle to remain up-to-date is endless.

In the round, our survey of small businesses encountered some very favourable attitudes:

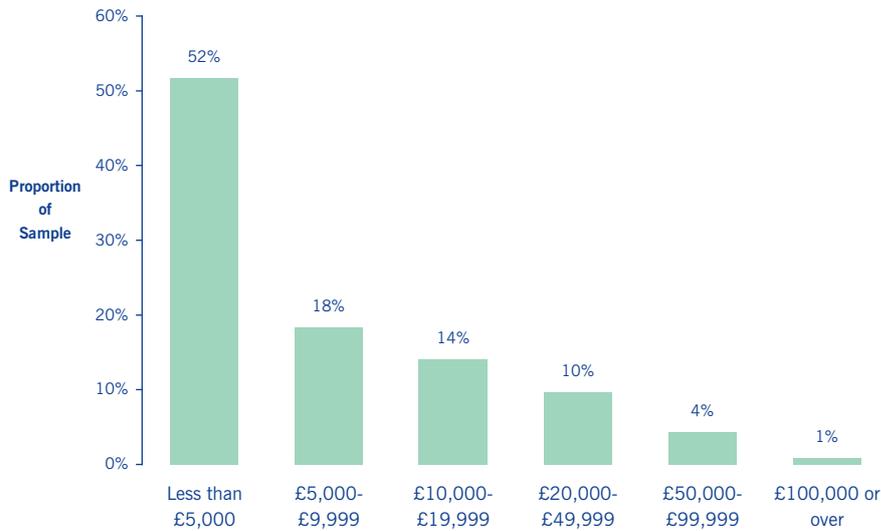
*“ICT is fundamental to the nature of our business – it is a ‘must have’.”*

*“There are still too many who do not embrace IT sufficiently. It is a constant race to keep up-to-date, but the rewards are great. Those left behind will become extinct.”*

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**Figure 1 - Expenditure On ICT Equipment & Software  
(Previous 12 Months)**



However, often, praise of ICTs was not without reservations and caveats:

*“There is an increasing disparity between the sophisticated systems of large companies and the affordable and proportionate facilities available to smaller companies. Interaction is becoming an increasing problem and puts small companies like ours at a disadvantage.”*

*“Over-reliance on IT and computer technology is a mind-addling and evil matter, out of control, and will do irreparable harm to the human race.”*

*“When the Great Electronic Crash happens, I shall happily revert to my fax machine.”*

*“E-mails waste too much management time – (they are) best used as a last resort.”*

*“We have experienced problems with the fragmentation element of ICT – hardware and software not always producing consistency. We have also been frustrated by the lack of support from the suppliers.”*

*“Because of ICTs, work we normally handle is being sourced increasingly out to India. This will eventually force us to contract or close.”*

*“Virtually all businesses place an over-reliance on ICTs. Back-ups are rarely field-tested and the time taken to reconfigure a server might cause many firms to face serious financial consequences.”*

*“Rapidly escalating capacity requirements of upgraded systems means being forced to replace network hardware. The economic benefits from this investment are debateable.”*

*“IT has made life more stressful and occupies great amounts of time.”*

*“IT should be seen as a tool and not as a replacement for people.”*

#### **RECENT INVESTMENT IN IT/ICT**

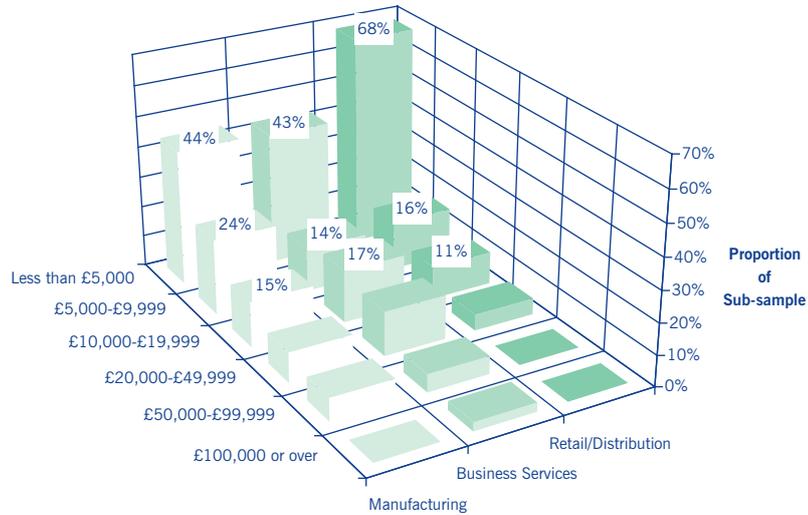
Just over a half of the respondents (52%) reported an expenditure on equipment and software of less than £5,000 over the previous 12 months (**Figure 1**).

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**Figure 2 - Expenditure On ICT Equipment & Software (Previous 12 Months): By Sector**

*Retail/distribution firms tended to spend less*



A sector breakdown revealed some interesting differences (Figure 2). Firstly, retail/distribution respondents represented the lowest-spending sector, with over two-thirds (68%) spending below £5,000, compared with fewer than a half of each of the other sector respondents.

But, at the opposite end of the spectrum, nearly a quarter of the business services firms (23%) spent in excess of £20,000, against 17% of manufacturers, and just 5%

for retail/distribution respondents.

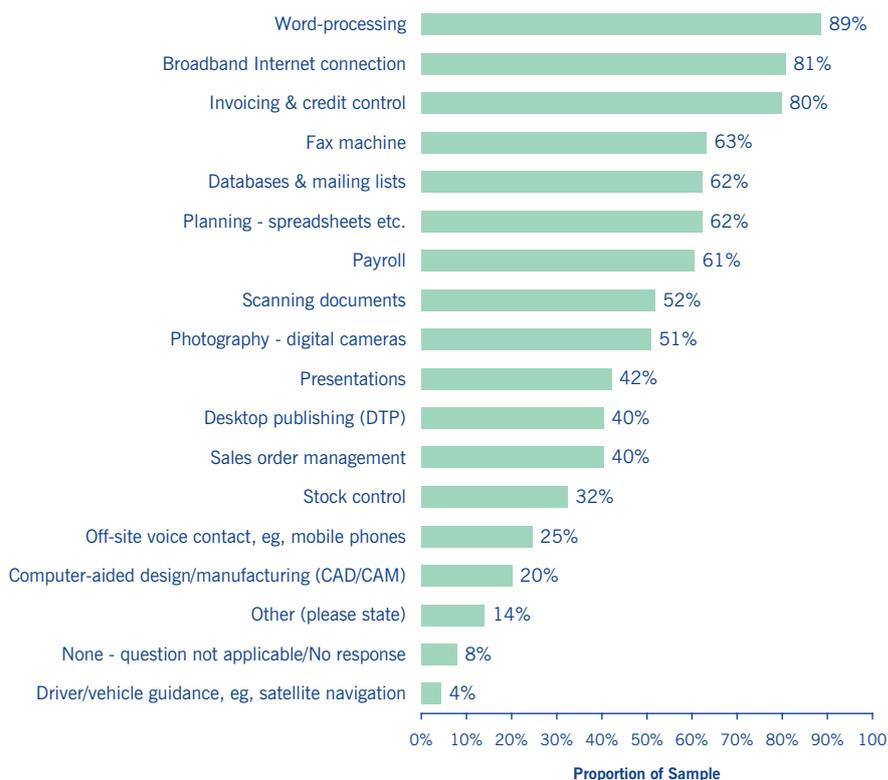
Other factors influencing IT/ICT investment were workforce size and gender. Figure 3 shows that, for an expenditure of £20,000 or more, there are no instances in the smallest 0-4 FTE (full-time-equivalent employee) size tranche, rising through to 33% for the 20-49 FTE tranche.

When considering gender differences, 61% of female-led business spent less than

**Figure 3 - Expenditure On ICT Equipment & Software, £20,000 Or More (Previous 12 Months): By Employee Size**



**Figure 4 - Tasks/Applications Used**



*Over half of the respondents reported using digital cameras*

£5,000 compared with 47% of their male equivalents. In contrast, only 10% of the female respondents had an expenditure of £20,000 or more, compared with 17% of their male counterparts.

### USES OF IT/ICTS

**Figure 4** demonstrates the sheer range of uses to which respondents put their ICT facilities. The top 9 applications were all claimed by over 50% of respondents, starting with word-processing, broadband internet connections and invoicing/credit control, down to planning/spreadsheet applications, payroll, document scanning and digital photography.

Other examples supplied by respondents included:

- Accounts preparation and tax returns
- Advertising
- Bespoke quotation & client base system
- Dental management

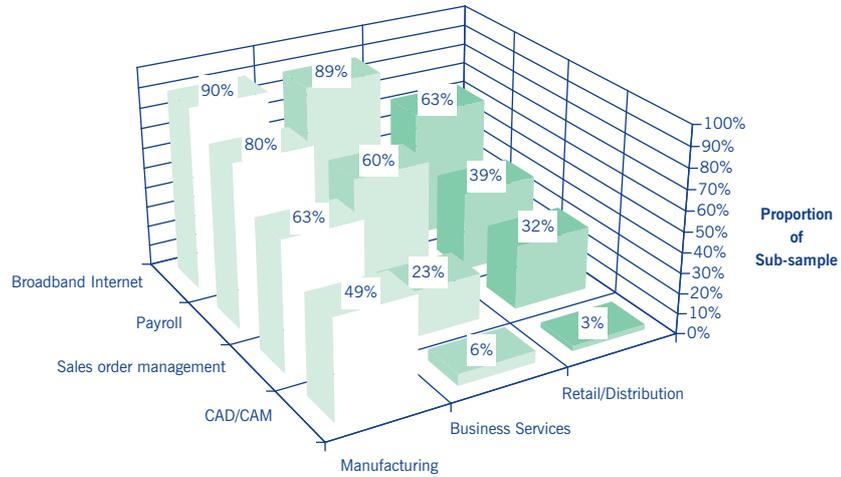
- Distribution documentation
- Graphic design
- Insurance policy processing (claims, etc.)
- Label printing
- Newsround management
- Programming
- Remote site data retrieval
- Skype (Internet telephony)
- Software development. Production programming. Testing. Calibration
- Specialist tax programs

Manufacturing sector businesses were generally the most extensive ICT users. This is demonstrated in **Figure 5**, comparing some functionally-important business areas where sector differences were particularly evident. To an extent, such differences may have been influenced by the fact that the manufacturing sector firms were usually larger than their counterparts in the other two sectors. Also, the almost negligible involvement in computer-aided design/manufacturing (CAD/CAM) amongst non-manufacturing firms is maybe not such a surprise.



**Figure 5 - Selected Tasks/Applications Used: By Sector**

*Manufacturers and larger firms typically reported the widest use*



**Figure 6** demonstrates the influence that the size factor (expressed in terms of FTEs or full-time staff equivalent employees) can have as an independent variable, in this case, concerning the wider use of a broadband internet connection and payroll software amongst larger businesses.

explanation for this might be a tendency for the larger firms to outsource this type of work.

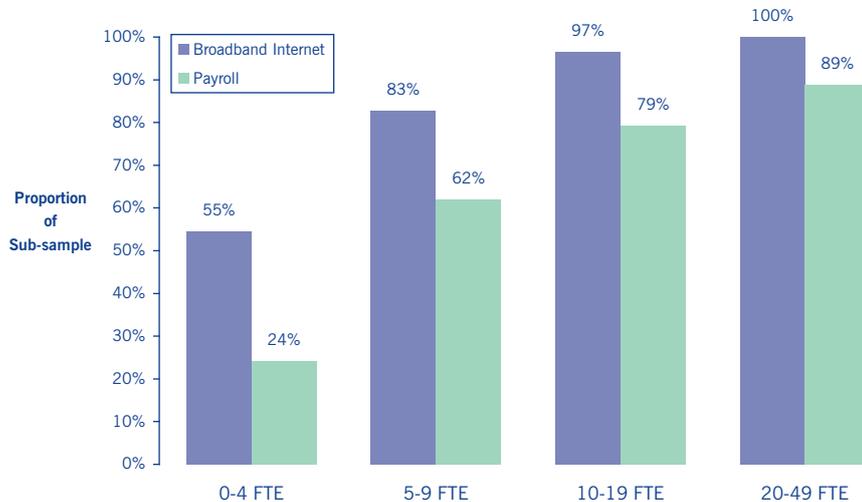
Also, broadband connections are opening up possibilities to businesses that were not previously considered practical, as illustrated in the case study in Appendix 2 (p.21).

Generally speaking, the larger-sized firms reported the widest use of IT/ICT tasks/applications, with the notable exception of desktop publishing (DTP). A possible

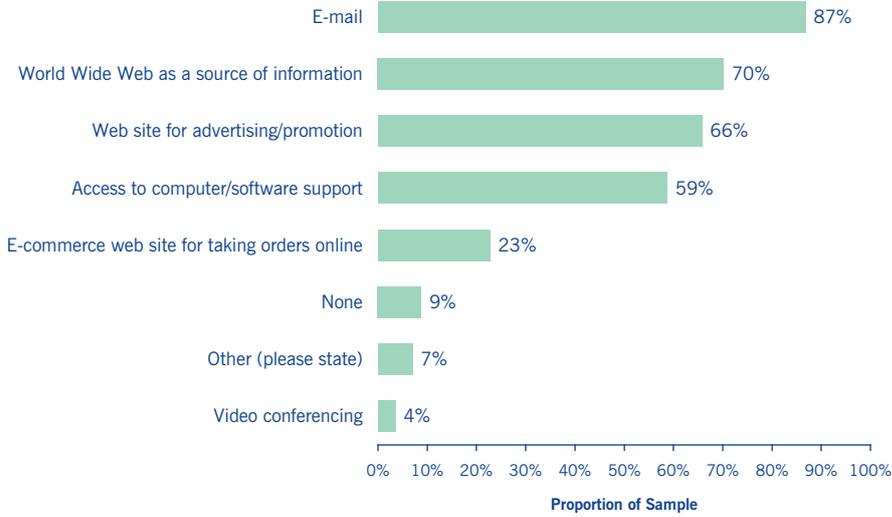
### INTERNET USES

**Figure 7** lists respondents' uses of the

**Figure 6 - Selected Tasks/Applications Used: By Employee Size**



**Figure 7 - Use Of Internet**



*Is there any escape from e-mail ?*

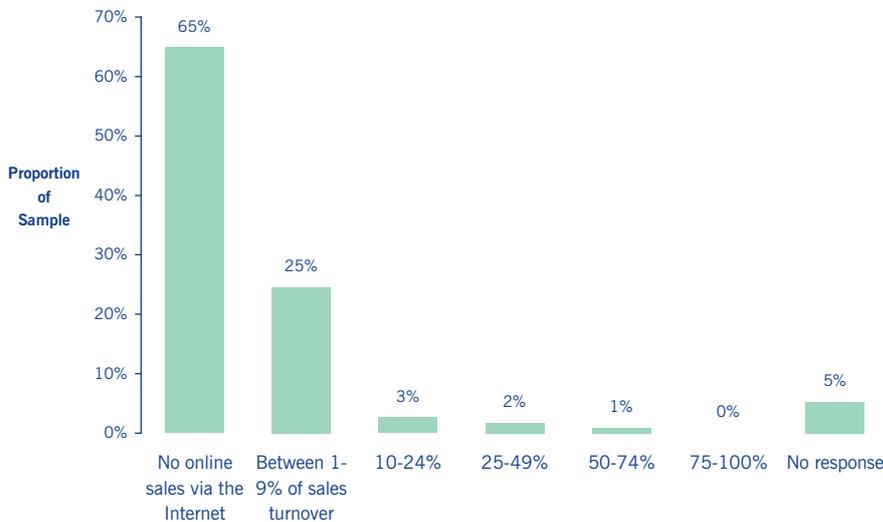
Internet in descending order, with the most predominant being e-mail (87%), and least, video conferencing, with just 4%. Other examples supplied by respondents included:

- Community portal
- HM Revenue & Customs applications
- Insurance company business placement
- Online filing of returns
- Online management information system
- Skype (Internet telephony), research
- Sourcing products

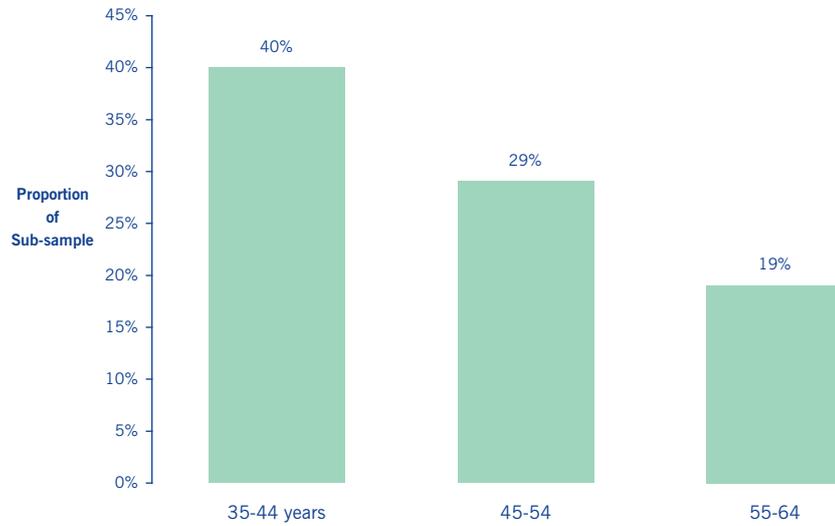
In 1997, our report on IT found that 58% of respondents were expecting to be using e-mail within 5 years (and 40% having their own web site for advertising, and 9% video conferencing). Also, business services firms were more widely persuaded than manufacturers about the potential benefits of the Internet (within 5 years), and 28% of respondents anticipated no benefits at all.

Separately, respondents were asked to indicate the proportion of sales turnover

**Figure 8 - Proportion Of Sales Turnover Derived From The Internet**



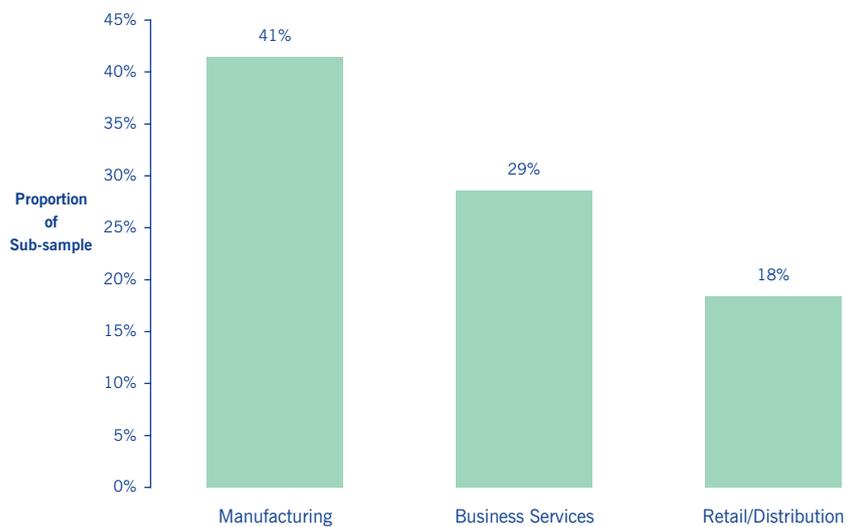
**Figure 9 - Firms Deriving 1-100% Sales Turnover Via The Internet: By Respondent Age**



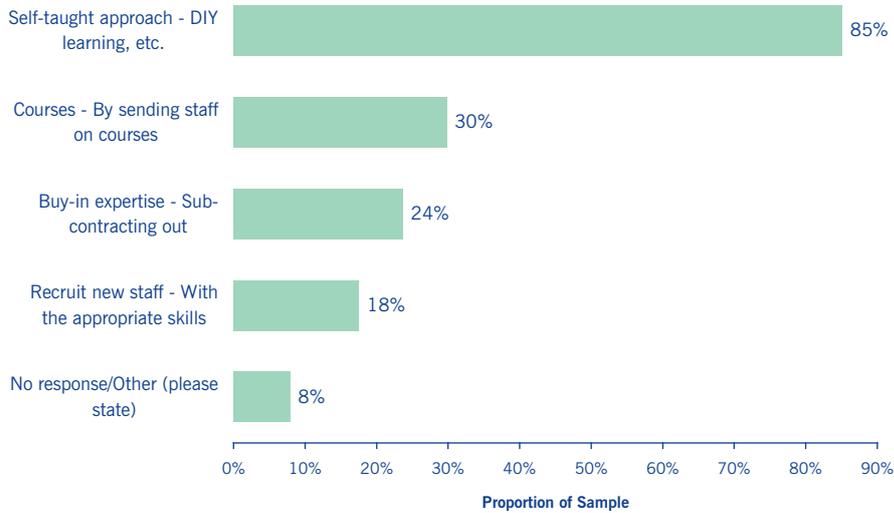
derived via the Internet, where nearly two-thirds (65%) derived no sales income this way (Figure 8, Question 5). Of the remainder, 31% indicated varying levels of sales income, which is greater than the 23% shown in Figure 7 for e-commerce orders (Question 4). But it is possible that some respondents interpreted the Figure 8 question more broadly, to include *any* sales achieved online, including via third party web sites, and its predecessor more narrowly, excluding third parties.

There appeared to be a distinct respondent age factor at work in this context (Figure 9). The proportion using the Internet for the purpose of accepting orders (for 1-100% of sales turnover) was relatively high (at 40%) for respondents in the 35-44 years age group, compared with only 29% for those aged 45-54 and just 18% for those aged 55-64. Thus, there is evidence of a generational factor here which may suggest a greater familiarity with, and use of, the Internet among younger respondents.

**Figure 10 - Firms Deriving 1-100% Sales Turnover Via The Internet: By Sector**



**Figure 11 - Predominant Means Of Aquiring ICT Skills**



*Business services respondents were more inclined to recruit new staff*

Some increase in the contribution towards sales turnover was evident amongst the larger firms, and there were also gender and sector differences with women less likely to feature here than men and manufacturing more likely than business services and retail/distribution to benefit this way (Figure 10).

ICT skills (85%) followed by 'sending staff on courses' (30%), 'sub-contracting' and 'buying-in'. Business services firms were the most likely to make use of external training courses and female-led businesses were the most likely to recruit new staff.

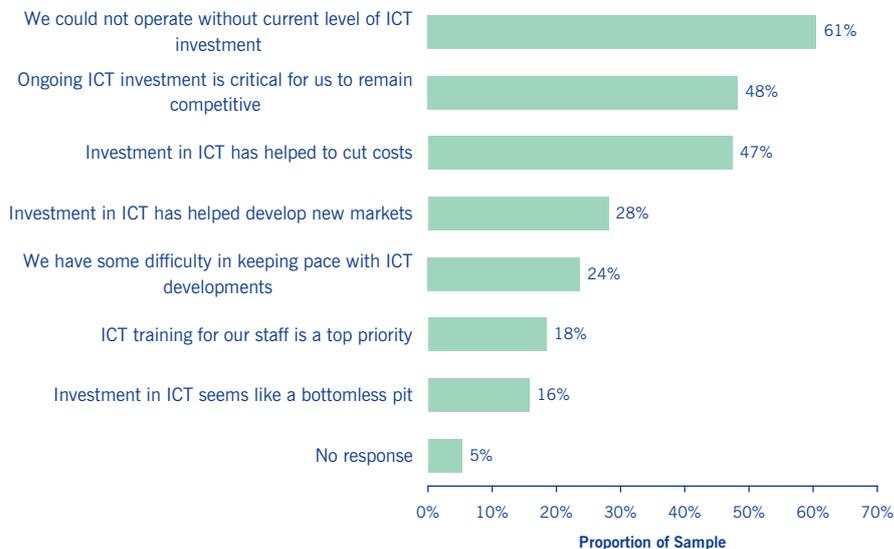
**ACQUIRING ICT SKILLS**

**ACCESSING NEW MARKETS VIA ICTS**

Figure 11 illustrates a strong tendency towards 'self-teaching' in the acquisition of

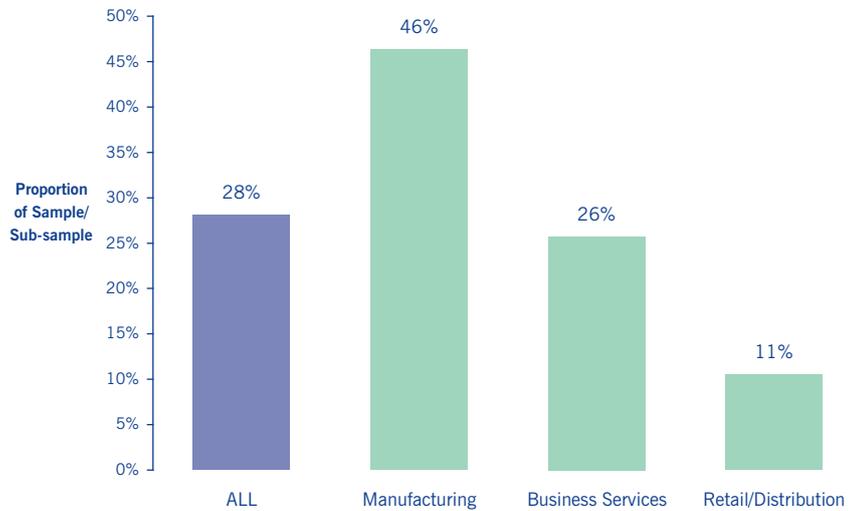
Figure 12 shows the responses to a range of statements regarding ICT use. Most attracted less than 50% agreement but some appeared

**Figure 12 - Attitudes Towards ICT Investment**



**Figure 13 - 'Investment In ICT Has Helped Develop New Markets': By Sector**

*ICT investment appears to have been especially important for manufacturers*



quite crucial.

For instance, **Figure 13** shows that, for the manufacturing sector, 46% said that investment in ICT had helped develop new markets. For business services this fell to 26%, and for retail/distribution just 11%.

**ICT LITERACY LEVELS AMONGST EMPLOYEES**

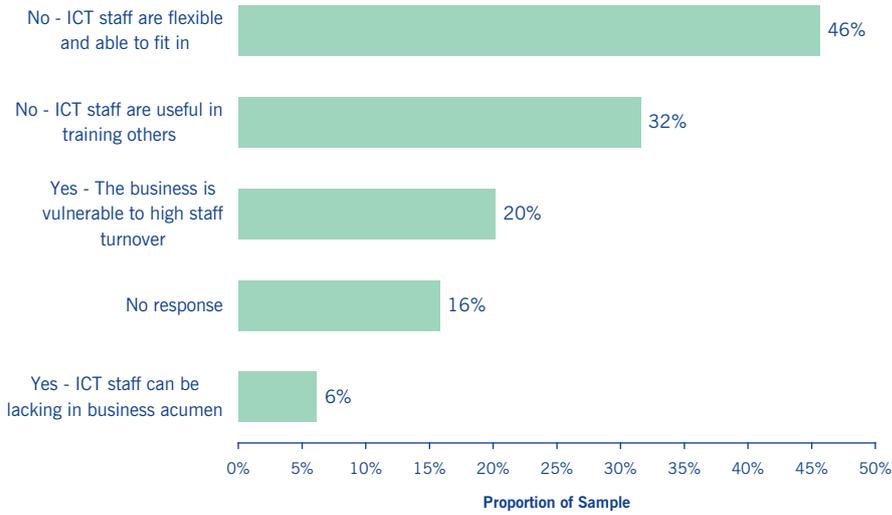
respondents were asked to appraise the levels of ICT proficiency attained by their relevant employees. It appears that 68% claimed the accolade of 'average' or 'good' for their staff, with a further 13% rating them as 'excellent'. Business services respondents gave the highest 'excellent' rating (20%), manufacturers the highest 'good' figure, and retail/distribution firms the highest 'poor/fair' combination (16%).

**Figure 14** summarises the results when

**Figure 14 - Assessment Of Staff ICT Literacy**



**Figure 15 - Does A Dependence On Key Employees For ICT Expertise Concern Respondents ?**



*Respondents seemed favourably disposed towards ICT staff*

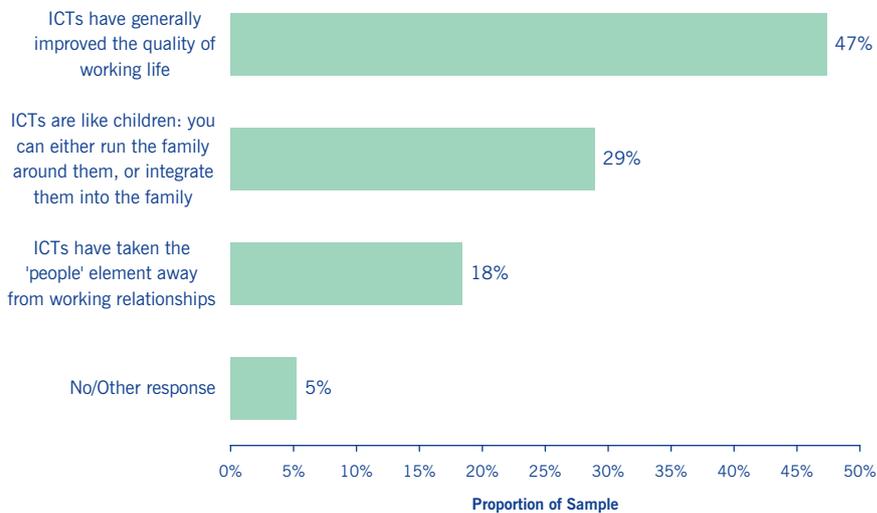
**FLEXIBILITY**

Just under a half of the respondents (46%) indicated that they were satisfied with the flexibility of staff with ICT skills (Figure 15). The widest satisfaction was amongst manufacturers (66%), and least, amongst business services (31%).

Finally, Figure 16 shows the responses to a forced-choice question where respondents could select only one option. The most

frequently selected was the option that 'ICTs have generally improved the quality of working life' (47%) followed by 'ICTs are like children: you can either run the family around them, or integrate them into the family' (29%). Only 18% felt that 'ICTs have taken the people element away from working relations'. However, this was approaching 1-in-5 respondents and some of the remainder may have been too young to be able to draw any realistic historic comparison.

**Figure 16 - Attitudes Towards Living With ICT**



## RESPONDENTS' COMMENTS

These commence in verbatim form on p.17.

## REFERENCES: MANAGING IT

The following references are offered as an aid to readers interested in seeking further information via the world-wide-web. The coverage is not intended to be definitive, and inclusion here should not imply either agreement or disagreement with the views expressed via these sources. Some web sites have appeared before, but there is usually a section noted with interests relevant to the theme of this report.

Special care should also be taken with material obtained from **outside** the UK, for example, the USA, where different legal issues may apply.

N.B. Some pages may contain links to other WWW pages offering related material. Tip: The WWW links were functional at the time of going to print, but the world wide web is in a state of constant change. So if later problems arise with a link, edit the link back to the 'home page' – e.g., truncate <http://www.bized.ac.uk/fme/xyz.htm> back to <http://www.bized.ac.uk/> – and look for a similar topic heading there.

- **BBC**  
GCSE Bitesize: 'ICT'. Basic level introductory material: Hardware, Software, Data Communications, Databases, Measurement and Control, Modelling, The Legal Framework, Implications of ICT.  
[www.bbc.co.uk/schools/gcsebitesize/ict/](http://www.bbc.co.uk/schools/gcsebitesize/ict/)

- **Business Link**  
Government small business support agency, offers an online section: IT & e-commerce, e.g., 'Get the most from IT in your business', 'Introduce an Internet and email policy', 'Wireless technology', 'Benefits of databases' and so on. Case studies, too, e.g., 'Here's how I changed my business for the better' (with such as 'Here's how supply chain software

improved my business').  
[www.businesslink.gov.uk/](http://www.businesslink.gov.uk/)

- **Department of Trade and Industry (DTI)**  
DTI five year programme: "sets out the priority actions and policies to deliver the Strategy - how the UK would develop a strong, modern, knowledge based economy ...". Report to download: 'Creating wealth from knowledge'.  
[www.dti.gov.uk/about/strategy-objectives/five-year-programme/page12613.html](http://www.dti.gov.uk/about/strategy-objectives/five-year-programme/page12613.html)
- **Europa**  
'Information Society' web page: SMEs and the ICT challenge: a 'think small first' approach. With a link to the European Commission's 'Helping SMEs to Go Digital' initiative.  
[http://europa.eu.int/information\\_society/ecowor/smes/index\\_en.htm](http://europa.eu.int/information_society/ecowor/smes/index_en.htm)
- **European Computer Driving Licence Foundation**  
"ECDL-F is the global governing body and licensing authority of the ECDL, the world's leading end-user computer skills certification programme."  
[www.ecdl.com/](http://www.ecdl.com/)
- **The Future Foundation**  
"Our mission is to understand what is really going on in the world, to provide order within the complexity, to present a clear sense of understanding and direction", produced a report, 'Do modern communications technologies make life better or worse?', for BT's Social Policy Team (February 2002, available from [www.btplc.com](http://www.btplc.com)).  
[www.futurefoundation.net/](http://www.futurefoundation.net/)
- **Greater Merseyside Digital Development Agency**  
A "cross sector voluntary partnership of key ICT stakeholders on Merseyside" and an example of a local body with several working groups which are "representative of organisations and individuals with a legitimate interest in the role of ICT in the regeneration of Merseyside." Offers

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a number of reports to download, for example: 'Broadband in rural areas - best practice study' (Countryside Agency), and broadband and industry sector reports on the Automotive, Food & Drink, Maritime, and Creative Industries.

[www.merseyside-dda.org.uk](http://www.merseyside-dda.org.uk)

- **Organisation for Economic Co-operation and Development (OECD)**

Broadband statistics.

[www.oecd.org/sti/ict/broadband](http://www.oecd.org/sti/ict/broadband)

- **The Register**

"Offers news, views, opinions and reviews on what's latest in the IT industry. Based in the UK."

[www.theregister.co.uk/](http://www.theregister.co.uk/)

- **Technology Means Business**

"The industry standard accreditation for those providing integrated business

and information and communications technology (ICT) advice to small and medium sized enterprises (SMEs)."

[www.technologymeansbusiness.org.uk/](http://www.technologymeansbusiness.org.uk/)

- **Telework Association**

"Europe's largest organisation dedicated to the promotion of teleworking", publishes 'Teleworking Handbook'.

[www.tca.org.uk/](http://www.tca.org.uk/)

- **West Midlands IT Association**

A private sector organisation, "responsible for the development of a credible and thriving IT industry within the West Midlands ... Member companies are carefully selected on the basis of work and a track record of serving their client base with value for money solutions."

<http://www.wmita.co.uk/>

## MANUFACTURING

### **High-tech Contemporary Textiles**

*ICT seems to be financially driven to generate huge profits for ICT manufacturers. Too many gimmicks on the market - not business-oriented.*

### **Manufacturing Broom Clamps and Holders, Yard Scrapers**

*[There is] Too much ICT, will tie us up in knots one day, if not already done so !*

### **Printing**

*ICT should be seen as a tool and not as a replacement for people.*

### **Protective Clothing**

*Rapidly escalating capacity requirements of upgraded systems means being forced to replace network hardware. The economic benefits from this investment are debatable.*

### **Reprographics**

*[It] Has made life more stressful - and occupies great amounts of time.*

### **Sub-contract Engineering Machining & Light Fabrication**

*We are a small company and our level of ICTs is probably the minimum. But large companies seem to have high levels of ICT without any real productivity gain. Much more key targeting of actual needs seems to be in order.*

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## BUSINESS SERVICES

### **Audit Accountancy and Taxation**

*Virtually all businesses place an over-reliance on ICT. Back-ups are rarely field-tested and the time taken to re-configure a server might cause many firms to face serious financial consequences.*

### **Business & Marketing Consultancy**

*Bit too much dependence. What if the machine stops ?*

### **Chartered Accountants**

*There are still too many who do not embrace IT sufficiently. It is a constant race to keep up to date but the rewards are great. Those left behind will become extinct.*

### **Computer-Aided Drafting Services**

*[The] cost of Microsoft software, Autocad and Autodesk building systems - all 1/3rd of price in USA.*

### **Graphic Designers**

*Because of ICT, work we normally handle is being sourced increasingly from India. This will eventually force us to contract or close.*

### **Insurance Brokers**

*We have experienced problems with the fragmentation element of ICT - hardware and software not always producing consistency. We have also been frustrated by the lack of support from suppliers.*

### **International Freight Forwarding Services**

*ICT is fundamental to the nature of our business - it is a 'must have'.*

## RETAIL & DISTRIBUTION

### **Computer System Reseller**

*It's a fact of life.*

### **Domestic Furnishings & Lighting**

*Over-reliance on IT and computer technology is a mind-addling and evil matter, out of control, and will do irreparable harm to the human race.*

### **Flowers, Pot Plants, Shrubs**

*E-mails waste too much management time - best used as a last resort.*

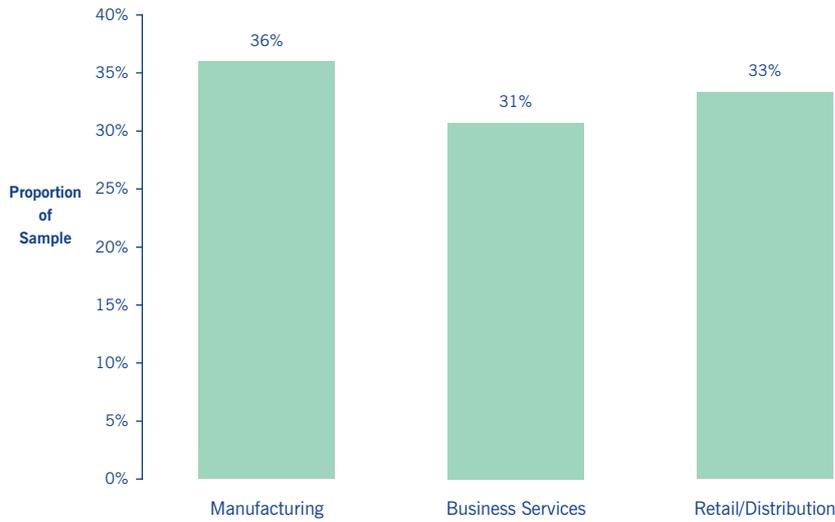
### **Hardware and Pet Store**

*In many small businesses ICT is used because it is felt that it should. In many cases it causes one to forget the primary reason for being, i.e., to serve customers. ICT does not always enhance person to person business relationships. Also it don't cut either time or paperwork !*

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**Figure 17 - Profile Of Sample:  
Respondents By Industrial Sector**



**APPENDIX 1 - ADDITIONAL INFORMATION**

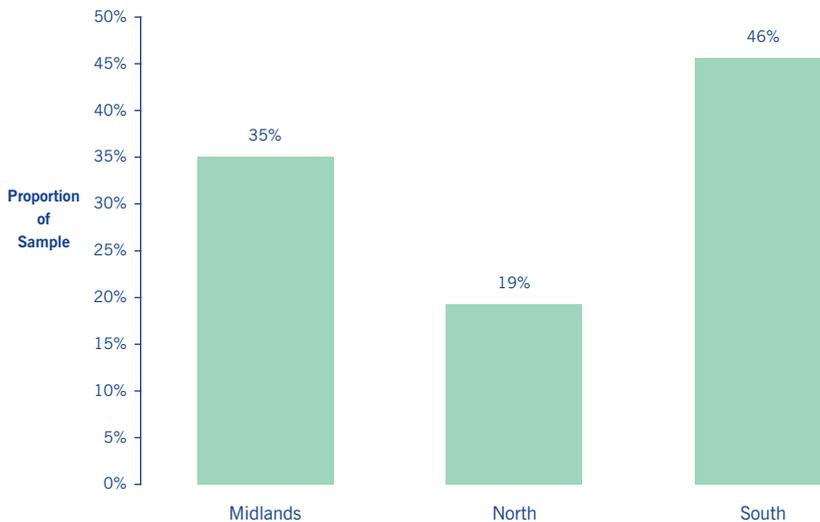
As an aid to the interpretation of the various figures (histograms), we have included some further information about the firms responding to this survey.

The analyses involve key variables, and **industry sector** and **employee size** are those most frequently used as they are reasonably reliable indicators and less prone to

misinterpretation. Other variables have also included **region**, **sales growth**, **respondent age** and **sex**.

**Industrial sectors** – based on the descriptions supplied by respondents, each firm is coded according to the Standard Industrial Classification (SIC 1980). Firms are then grouped into manufacturing, business services, retail/distribution. Firms falling outside these 3 bands – which would otherwise be classified as ‘other’ – are allocated

**Figure 18 - Profile Of Sample:  
Respondents By Region**



**Figure 19 - Profile Of Sample:  
Respondents By Employee Size**



to the foregoing sector which offers the closest match.

**Regions** - firms are also classified according to their physical location, namely, North, Midlands and the South.

**Employee size** - finally, firms are placed in bands according to the number of employees. Each part-time employee is assumed to be equivalent to 40 per cent of a full-time employee ('FTE' = full-time equivalent). All of the surveys to date have received only a small number of responses from firms with 50 or more FTE employees. These responses have been **included** in the breakdowns for the **sectoral** and **regional** analyses, but have been **excluded** as a '50+FTE' band in the **employee-size** analyses (the 'All' band in each histogram includes all usable responses regardless). This is because a percentage breakdown band based on just two or three firms may not be representative of this size of business.

#### **Distribution of firms**

The highest proportion of respondents is in manufacturing (36%, compared with 38% in the same sector for the previous report), see **Figure 17**.

The South region has the largest representation, with 46% of the sample's respondents (38% in both the South and Midlands previously), see **Figure 18**.

Manufacturing and business services firms in samples can tend to be larger, in terms of employees, whereas the firms in retailing/distribution may have fewer full-time equivalent employees. Likewise, the sample is biased towards the smaller businesses – but not the very smallest (sole traders), of which there is a preponderance amongst the small firms population generally. The employee size distribution for the sample is shown in **Figure 19**.

In terms of respondent age, they are predominantly 35 years or older, with the bulk between 45 and 64 years' old.

Finally, the sample is predominantly male (67%, compared with 72% previously).

#### **Abbreviation of questionnaire text**

It should be noted that, for reasons of space and, hopefully, clarity, questions and response options are sometimes abbreviated in the report text and the accompanying figures. The exact wording used is shown in the questionnaire appendix.

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## APPENDIX 2

### BROADBAND CASE STUDY (NW Regional Development Agency)

#### Key Facts

- Door furniture supplier increases speed and quality of customer service by e-mailing photos and drawings
- Mobile broadband used to check stock availabilities and e-mail order details when visiting customers
- Broadband led to installation of wireless network.

Prescott Architectural Ironmongers is a well established firm, founded in 1927, which specialises in commercial, domestic and designer door furniture. Until this year [2005] they were happy to use tried and trusted business methods that involved lots of paper, postage and an old PC for typing up letters and invoices.

The joint managing director of the St. Helens based firm, Colin Prescott, admits that he was doubtful about whether the Internet would be cost effective, and benefit his business. His first experiences did nothing to dispel this skepticism. He remembers that using a dial-up connection for web access "seemed to take forever. It's really important to us to see pictures of products before we order them to make sure we get what we need. But the images took so long to view. It was frustrating as well as expensive."

#### Faster responses and time savings

However, as an increasing number of Prescott's suppliers and customers took up broadband, Colin felt pressure to keep in step. He took the leap in the summer of 2005 - and became an instant convert. He observes that, "customers need answers straight away. Now they can take a picture on their phone and e-mail it through to us instantly. We can get the order out that

same day. Previously it would have taken a lot longer. And we used to fax architectural drawings. Now they can be e-mailed which offers much better quality. I'm sure that this increased responsiveness and efficiency is winning us business we wouldn't previously have got."

Broadband has also solved the problem of accessing product images, and made it easier to find new suppliers. Colin remembers "one occasion when a good customer wanted a specialist part that we couldn't get through our usual sources. I accessed the Internet and within seven minutes I had found and ordered it. Before we had broadband, dial-up would have been too slow so I'd have spent a frustrating half-a-day going through catalogues and ringing up possible suppliers."

#### Initial success leads to increased investment in equipment and skills

These positive experiences have stimulated more investment in both equipment and skills. Prescott has purchased more computers and installed a wireless network so staff can move around the premises with a laptop, and still be connected to the Internet. The accounts team too have been trained in on-line accounting software so that they can invoice by e-mail.

Colin has also acquired a laptop so that he can work away from his desk. He remains connected through a home broadband connection, or a card which allows him to send data at broadband speed via his mobile phone when on the move. "The flexibility," he says, "is fantastic. When I'm with customers I can check stock availabilities, and e-mail the details of any orders taken to the office so that they can get on with ordering them, and invoicing. And I can pick up my own e-mails wherever I am." There are also plans to move into e-commerce by putting Prescott's entire catalogue on the Internet so that customers can browse, order and, if they wish, pay online. This will allow the company to respond more easily to the increased number of enquiries it is getting

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from other parts of the country, and even Europe.

**Serious cost savings  
have been achieved**

*Colin is sure that “the time saved by using a high speed connection equates to serious cash saving.” He gives the example of providing a quote for a customer. This used to take up to half-a-day to prepare, and at least a day to arrive when posted. Today the use of templates and web access means that it can be prepared in half-an-hour, and e-mailed instantly.*

*Colin reflects that “in just a matter of months a high speed connection has made a huge difference to the way we work. The costs are fixed whatever our use and the speed is fantastic. I know it sounds clichéd but I really can’t imagine how we got on without broadband. I wonder how much more successful we’d have been if we had gone for it years ago.”*

Source: Northwest Regional Development Agency, ‘Broadband Opens the Door to Greater Efficiency and New Markets’, prepared by SustainIT ([www.sustainit.org](http://www.sustainit.org)), available from the Greater Merseyside Digital Development Agency ([www.merseyside-dda.org.uk](http://www.merseyside-dda.org.uk))

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We are seeking the views of small firm owner-managers. This questionnaire will take approximately 5-10 minutes to complete – most answers require only a single tick. All information received will be treated in complete confidence. PLEASE RETURN AS SOON AS POSSIBLE.

## 1a Workforce size - Please indicate the total number of people working in your business (including yourself):

- Full-time .....  A  
Part-time (16 hrs/wk or less) .....  B

## 1b Respondent age - Your age last birthday:

- 16-24 years .....  A  
25-34 .....  B  
35-44 .....  C  
45-54 .....  D  
55-64 .....  E  
65 or over .....  F

## 1c Respondent gender - Your gender:

- Male .....  M  
Female .....  F

## 2 Investment in Information & Communication Technology (ICT) - Approximately how much did your business spend on ICT equipment and software last year ? (net of VAT)

Just one ✓ only

- Less than £5,000 .....  A  
£5,000-£9,999 .....  B  
£10,000-£19,999 .....  C  
£20,000-£49,999 .....  D  
£50,000-£99,999 .....  E  
£100,000 or over .....  F

## 3 Tasks/applications - If your business uses computers or other ICT equipment, for what purposes are they used ?

✓ All which apply

- Broadband Internet connection .....  A  
Computer-aided design/  
manufacturing (CAD/CAM) .....  B  
Databases & mailing lists .....  C  
Desktop publishing (DTP) .....  D  
Driver/vehicle guidance - e.g.,  
satellite navigation .....  E  
Fax machine .....  F  
Invoicing & credit control .....  G  
Off-site voice contact - e.g.,  
mobile phones .....  H  
Payroll .....  I  
Photography - digital cameras .....  J  
Planning - spreadsheets etc. ....  K  
Presentations .....  L  
Sales order management .....  M  
Scanning documents .....  O  
Stock control .....  P  
Word-processing .....  Q  
None - question not applicable .....  R  
Other (please state) .....  S

## 4 The Internet - For which of the following tasks does your business use the Internet ?

✓ All which apply

- Access to computer/software support .....  A  
E-commerce web site for  
taking customer orders online .....  B  
E-mail .....  C  
Video conferencing .....  D  
Web site for advertising/promotion...  E  
World Wide Web as a source of  
information (official documents,  
supplier information, etc.) .....  F  
None .....  G  
Other (please state) .....  H

**5** Online sales via the Internet - What proportion of your current sales turnover derives from e-commerce (customers ordering directly online) ?:

*Just one ✓ only*

- No online sales via the Internet.....  A
- or Between 1-9%.....  B
- or 10-24%.....  C
- or 25-49%.....  D
- or 50-74%.....  E
- or 75-100%.....  F

**6** Acquisition of ICT skills - How does your business predominantly acquire the necessary ICT expertise ?

*✓ All which apply*

- Courses - By sending staff on courses  A
- Buy-in expertise - Sub-contracting to third-party suppliers  B
- Recruit new staff - Already having the appropriate skills  C
- Self-taught approach - DIY learning, on the job, etc.  D
- Other (please state)  E

\_\_\_\_\_

**7** Attitudes towards investment in ICT - Please indicate where you strongly agree with any of the following statements:

*✓ All which apply*

- ICT training for our staff is a top priority  A
- Investment in ICT has helped us to develop new markets  B
- Investment in ICT has helped to cut costs  C
- Investment in ICT seems like a bottomless pit offering only limited benefits  D
- My business could not operate without its current level of ICT investment  E
- My business has some difficulty in keeping pace with developments in ICT  F
- Ongoing investment in ICT is critical in order for my business to remain competitive  G

**8** ICT Literacy of staff - How do you rate overall the ICT literacy of your employees in relation to the needs of the business ?

*Just one ✓ only*

- Poor.....  A
- or Fair.....  B
- or Average.....  C
- or Good.....  D
- or Excellent.....  E
- or N/A - ICT skills not needed.....  F

**9** Over-reliance on key staff - Does a dependence on key employees for ICT expertise concern you ?

*✓ All which apply*

- Yes - It makes the business vulnerable to a high turnover of staff  A
- Yes - Because ICT staff can be lacking in business acumen  B
- No - Because ICT staff are useful in training others  C
- No - Because ICT staff are flexible and able to fit in as required  D

**10** Living with ICT - Please identify which ONE of the following options you most strongly agree with:

*Just one ✓ only*

- ICTs have generally improved the quality of working life  A
- or ICTs have taken the 'people' element away from working relationships  B
- or ICTs are like children: you can either run the family around them, or integrate them into the family  C

**11** 'Information & Communication Technology' - If you have any strong views, especially if you feel that any aspect is not fully appreciated by sections of the wider community, then please comment:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Thankyou for your co-operation. Please return the completed questionnaire, using the pre-paid envelope, to:*

**Ms. Beverley Dash**  
**SERTeam - Open University Business School**  
**Walton Hall, Milton Keynes MK7 6AA**

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